NATIONAL WEATHER SERVICE PORTLAND OR

Pacific NW Spotter Newsletter

www.wrh.noaa.gov/Portland

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SEPTEMBER 2004

Severe Weather Pounds the Pacific NW

The entire state of Washington averages just under two tornadoes per year, yet through September 2004, at least seven tornadoes have been reported in the state. Two of the tornadoes occurred in southwest Washington, north of the Vancouver area. The first of these tornadoes touched down on the afternoon of May 27th, northeast of LaCenter, WA. A witness described hearing a large "roar", followed by branches and pine cones falling on her roof, while debris flew across her yard. The commotion lasted less than 30 seconds, and when it was over, a medium- sized tree was uprooted and part of a barn roof was damaged. Luckily, no one was injured.

The second tornado reported locally touched down during the late afternoon of June 6th, near Kalama, WA, along the Columbia River. Again, witnesses reported hearing a "roaring" sound, followed by whirling tree branches and other airborne debris. As with the LaCenter tornado, there was little damage, and no injuries.

Northwest Oregon did not escape without its fair share of severe weather this summer. In the early morning hours of July 13th, severe thunderstorms erupted in the foothills of the Cascades in Lane county. These storms moved quickly north into parts of eastern Linn, Marion, and Clackamas counties producing nickel-sized hail and strong winds that blew down trees and power lines.

After a quiet period of weather through the late summer, a tornadic storm made a return to Washington on Sept. 13th. This tornado occurred in Ridgefield, WA and lifted a trailer off its foundation and moved it 30 feet. Even though we're heading into the fall season, don't let your guard down. Severe thunderstorms and tornadoes have regularly occurred in NW Oregon and SW Washington well into the month of December. We would like to thank all our spotters who have called in these crucial reports. Keep those reports coming, we really appreciate them.

Tornado touches down briefly near Kalama, WA on June 6, 2004

INSIDE THIS ISSUE:

SPECIAL POINTS OF INTEREST:

- ***Trivia…….. Question : What is the record for the driest calendar day in Salem?***

(see page 5 for answer…)

- *Are you ready for the winter weather season?*

Please review your spotter materials and call-in criteria, or join us for one of our instructional classes in October.

Climate Page

March and April were abnormally warm and dry, while May and June resembled a normal Oregon spring. Things got hot and dry again in July and early August. Then, the heavy rains hit at the end of August. So, how did the spring and summer of 2004 stack up against normal?

Measured Averages & Departures from Normal

		MAR	APR	MAY	Spring	JUN	JUL	AUG	Summer
Astoria	Avg Temp	48.0	50.9	55.0	51.3	59.5	63.0	63.8	62.1
	Departure	+2.0	+2.4	+2.3	+2.2	+2.8	+2.9	+3.0	+2.9
	Precip	5.47	2.85	3.37	11.69	1.68	0.15	3.98	5.81
	Departure	-1.90	-2.08	+0.09	-3.89	-0.89	-1.01	+2.77	+0.87
Portland	Avg Temp	51.2	56.3	60.1	55.9	65.5	71.5	71.5	69.5
	Departure	+4.0	+5.1	+3.0	+4.0	+2.8	+3.4	+3.0	+3.1
	Precip	1.53	1.01	1.78	4.32	1.12	0.04	2.68	3.84
	Departure	-2.18	-1.63	-0.60	-4.41	-0.47	-0.68	+1.75	+0.60
Salem	Avg Temp	49.0	52.5	56.8	52.8	63.1	70.0	70.1	67.7
	Departure	+2.5	+2.6	+1.1	+2.1	+1.9	+3.2	+3.1	+2.7
	Precip	1.43	2.13	2.08	22.24	1.78	0.09	1.04	2.91
	Departure	-2.74	-0.63	-0.05	-3.42	+0.33	-0.48	+0.36	+0.21
Eugene	Avg Temp	49.2	51.6	56.4	52.4	62.0	69.2	69.2	66.8
	Departure	+3.0	+1.8	+1.6	+2.1	+1.8	+3.0	+2.8	+2.5
	Precip	1.80	2.69	1.73	21.81	1.36	0.08	0.80	2.24
	Departure	-4.00	-0.97	-0.93	-5.90	-0.17	-0.56	-0.19	-0.92

Normals for the Autumn and Winter Months

	SEP	OCT	NOV	Autumn	DEC	JAN	FEB	Winter
Astoria Avg Temp	58.5	52.6	46.6	52.6	42.8	42.4	44.2	43.1
Avg Precip	2.61	5.61	10.50	18.72	10.40	9.62	7.87	27.89
Portland Avg Temp	63.6	54.3	45.8	54.6	40.2	39.9	43.1	41.1
Avg Precip	1.65	2.88	5.61	10.14	5.71	5.07	4.18	14.96
Salem Avg Temp	62.2	52.9	45.2	53.4	40.2	40.3	43.0	41.2
Avg Precip	1.43	3.03	6.39	10.85	6.46	5.84	5.09	17.39
Eugene Avg Temp	61.7	52.6	44.7	53.0	39.5	39.8	42.8	40.7
Avg Precip	1.54	3.35	8.44	13.33	8.29	7.65	6.35	22.29

Climate Outlook

The warming of the equatorial Pacific waters over the last couple months has reached the point where weak El Nino conditions are now evident. In fact, NOAA Climate Prediction Center has announced that El Nino conditions will prevail over the Pacific into early 2005. El Nino is defined as positive equatorial Pacific sea surface temperature anomalies greater that 0.5 degrees C over and extended time period. It appears we are in the early stages of an El Nino period and early indications point to a weak El Nino phase.

What does this mean for NW Oregon and SW Washington weather this winter? In general, El Nino winters are characterized by slightly warmer and drier than normal conditions. However, these indicators have only a weak correlation; and particularly during a weak El Nino, the conditions for the upcoming winter are highly in question. The official CPC forecast calls for better than normal chances of above normal temperatures and below normal precipitation.

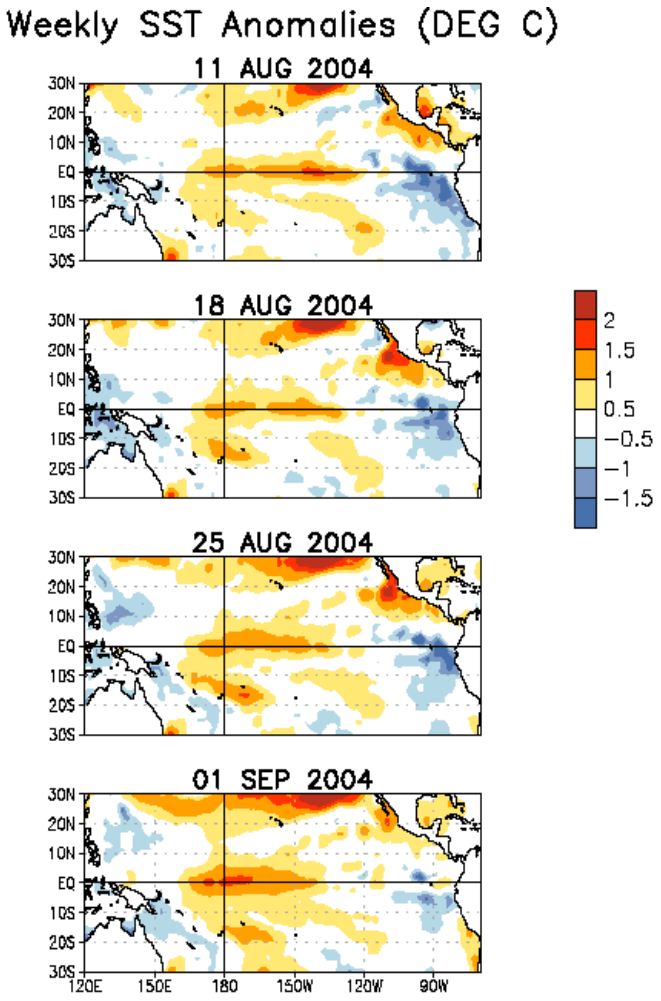
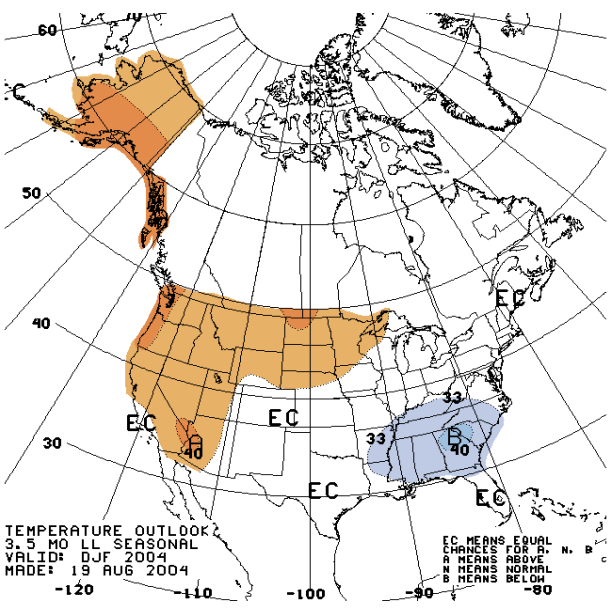
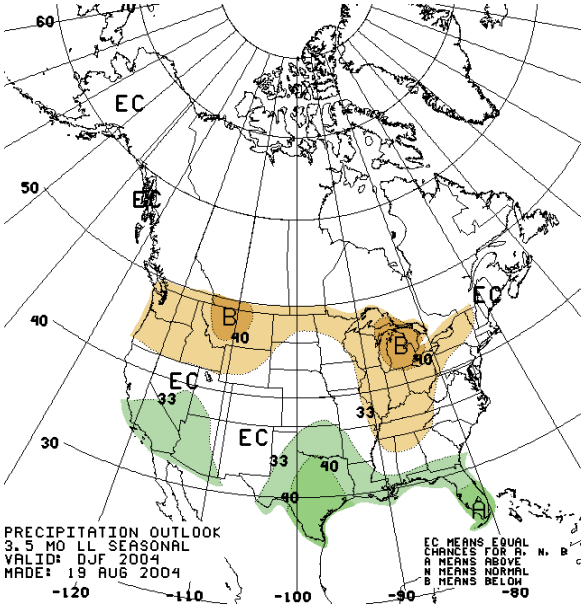


Figure 2. Weekly sea surface temperature (SST) anomalies (°C) for the weeks centered on 11 August, 18 August, 25 August and 1 September 2004. The SST anomalies are computed with respect to the 1971-2000 base period means (Smith and Reynolds, 1998, J. Climate, 11, 3320-3323).





NWS Portland Open House

We're hosting an open house Saturday, October 9th from 10 am to 2 pm. Bring your family and friends and find out how we predict weather with the cool tools and equipment we have at our disposal. We're located at 5241 NE 122nd Ave in Portland. We look forward to seeing you.

Spotter Corner

Spotter Groups :

How would you like belong to a unique group of West coast spotters? Now you can - There is a Yahoo! Group called WestCoastWeather. Go to http://groups.yahoo.com/group/WestCoastWeather/. This group is free and you can connect with spotters from British Columbia to California.

Snow Measuring Guidelines :

Measuring snowfall seems like a simple task, yet there are guidelines that spotters should follow when reporting snow amounts. **1)** Snow is best measured on flat solid surfaces that do not retain heat. The National Weather Service uses what is called a snow board, which is a square white piece of plywood. It is not recommended that snow be measured on pavement or grassy areas. **2)** It is best to measure snow in areas not prone to drifting, and areas not blocked by trees. Optimally, the measuring site should be clear of obstructions by at least 20 feet in all directions. **3)** Three different representative measurements should be made in the optimal area. The average of these 3 measurements should be the reported snowfall. **4)** When measuring newly fallen snow over an existing snowpack, remember the existing snow will compress under the weight of the new snow. The best practice is to clear an area free of snow when the first snowfall has finished, thereby making it easier to measure the new snowfall. Having said all this, it will probably not snow in the Willamette Valley for the next several years!

Please review the winter weather call-in criteria for your area, including snowfall amounts, to prepare for the upcoming season.

New Spotter Training Sessions this October

The National Weather Service has scheduled 3 spotter training sessions in northwest Oregon this October. We encourage all active spotters who have not been to a training seminar in a few years to attend, and to help us recruit new members to the spotter community. Perhaps, you know a friend or relative who is interested in weather and public service. We are particularly interested in recruiting people residing in more remote areas of the region, where observations are hard to come by. We will focus on winter weather, although we will cover all aspects of significant weather in the Pacific Northwest. We look forward to seeing everyone in the near future. The sessions are as follows :

Wednesday, October 13th at 7:00 pm

Tillamook, OR

Tillamook Co Emergency Management Facility

5995 Long Prairie Rd

Trivia Answer : Since 1892, no July 12th at the Salem airport has had measurable precipitation. Only a trace of rain has fallen on 3 years of that 112 year span. Sounds like a good day to plan a wedding...

Wednesday, October 6th at 7:00 pm

St Helens, OR

Columbia County Courthouse - Room EOC

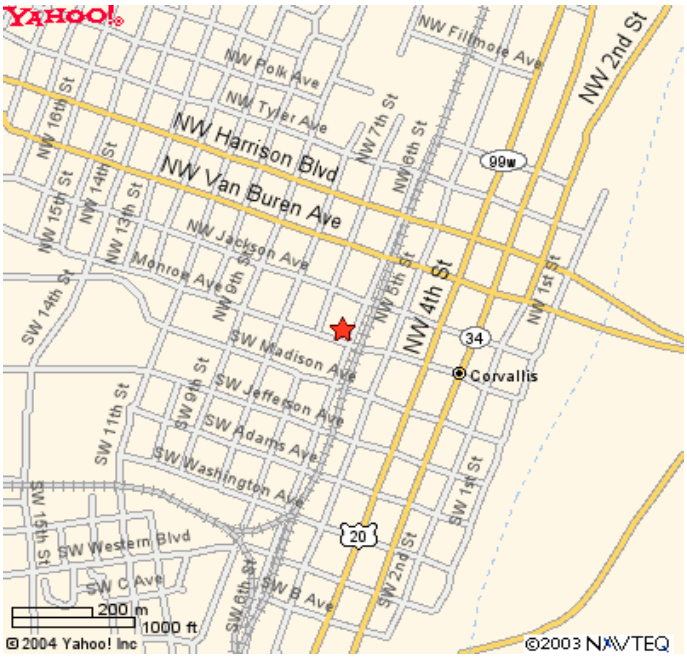
230 Strand St

Tuesday, October 26th at 7:00 pm

Corvallis, OR

Benton County Public Library

645 NW Monroe



Winter Weather Spotter Checklist

<u>High Winds :</u> Sustained winds 40 mph and greater or gusts over 58 mph
<u>Heavy Rain :</u> Over 1.5 inches of rain in a 24 hour period, or 0.75 inches in a 1 hour period
<u>Flooding :</u> Any kind of river flooding
<u>Snowfall :</u> Over 1 inch at coast or in valleys/Over 4 inches coast range & foothills/ Over 6 inches in Cascades
<u>Freezing Rain :</u> Any kind of accumulation
<u>Heavy Surf :</u> Seas that are causing beach

Portland NWS Web Site is Changing its Look

On October 1st, the National Weather Service will change over to new web servers. Reasons for the formats and changes are due to web security, and general compliance with various directives such as Section 508, which involves equal web access for all persons including those with physical impairments.

In addition, this new server allows the National Weather Service to access backup servers in the event of heavy web usage, such as during widespread storm events on the West Coast, or outages. Other National Weather Service web servers in other regions of the United States will share the load, keeping access times short.

New Items with this Change:

1. National Weather Service MesoNet system, which allows you to view current weather observations from a variety of sources.
2. New forecast formats on the main page, with detailed point forecast for your corner of the world.
3. Improved databases will allow easier access to archived data.
4. Newer page format will improve download times for the pages and other data.
5. New photographs and storm summaries.

We hope this transition will be seamless, however, in this digital age, nothing is certain. If you notice something wrong or missing on our new page, please e-mail w-pqr.webmaster@noaa.gov.

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courtesy Rob Mercer
A photograph of a tornado captured in Alderdale Washington Monday night.